

10528612

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* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 OCT 23 The Derwent World Patents Index suite of databases on STN
has been enhanced and reloaded
NEWS 4 OCT 30 CHEMLIST enhanced with new search and display field
NEWS 5 NOV 03 JAPIO enhanced with IPC 8 features and functionality
NEWS 6 NOV 10 CA/CAPLUS F-Term thesaurus enhanced
NEWS 7 NOV 10 STN Express with Discover! free maintenance release Version
8.01c now available
NEWS 8 NOV 20 CA/CAPLUS to MARPAT accession number crossover limit increased
to 50,000
NEWS 9 DEC 01 CAS REGISTRY updated with new ambiguity codes
NEWS 10 DEC 11 CAS REGISTRY chemical nomenclature enhanced
NEWS 11 DEC 14 WPIDS/WPINDEX/WPIX manual codes updated
NEWS 12 DEC 14 GBFULL and FRFULL enhanced with IPC 8 features and
functionality
NEWS 13 DEC 18 CA/CAPLUS pre-1967 chemical substance index entries enhanced
with preparation role
NEWS 14 DEC 18 CA/CAPLUS patent kind codes updated
NEWS 15 DEC 18 MARPAT to CA/CAPLUS accession number crossover limit increased
to 50,000
NEWS 16 DEC 18 MEDLINE updated in preparation for 2007 reload
NEWS 17 DEC 27 CA/CAPLUS enhanced with more pre-1907 records
NEWS 18 JAN 08 CHEMLIST enhanced with New Zealand Inventory of Chemicals
NEWS 19 JAN 16 CA/CAPLUS Company Name Thesaurus enhanced and reloaded
NEWS 20 JAN 16 IPC version 2007.01 thesaurus available on STN
NEWS 21 JAN 16 WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data
NEWS 22 JAN 22 CA/CAPLUS updated with revised CAS roles
NEWS 23 JAN 22 CA/CAPLUS enhanced with patent applications from India
NEWS 24 JAN 29 PHAR reloaded with new search and display fields
NEWS 25 JAN 29 CAS Registry Number crossover limit increased to 300,000 in
multiple databases

NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

NEWS HOURS STN Operating Hours Plus Help Desk Availability
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NEWS IPC8 For general information regarding STN implementation of IPC 8
NEWS X25 X.25 communication option no longer available

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 08:28:51 ON 08 FEB 2007

=> fil reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.42

0.42

FILE 'REGISTRY' ENTERED AT 08:29:43 ON 08 FEB 2007

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 7 FEB 2007 HIGHEST RN 919834-45-0

DICTIONARY FILE UPDATES: 7 FEB 2007 HIGHEST RN 919834-45-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

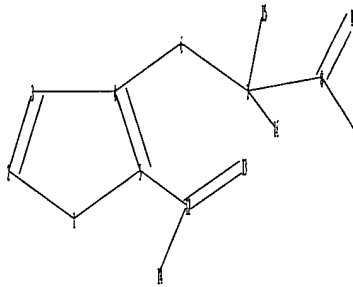
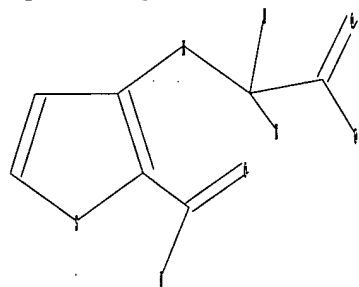
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10528612Intermed.str



chain nodes :

6 7 8 9 10 12 13 14 15 16

ring nodes :

1 2 3 4 5

chain bonds :

4-6 5-12 6-7 7-8 7-15 7-16 8-9 8-10 12-13 12-14

ring bonds :

1-2 1-5 2-3 3-4 4-5

exact/norm bonds :

4-6 6-7 8-9 8-10 12-13

exact bonds :

10528612

1-2 1-5 2-3 3-4 4-5 5-12 7-8 7-15 7-16 12-14
isolated ring systems :
containing 1 :

Match level :

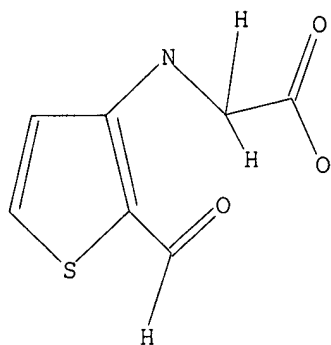
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:CLASS 9:CLASS 10:CLASS
12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

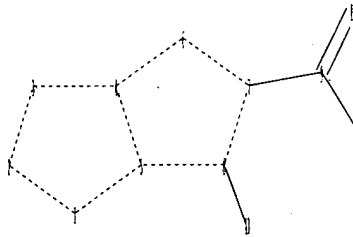
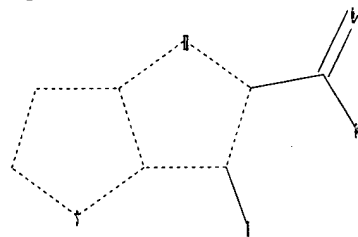
L1 STR



Structure attributes must be viewed using STN Express query preparation.

=>

Uploading C:\Program Files\Stnexp\Queries\10528612finalProd.str



chain nodes :

9 10 11 13

ring nodes :

1 2 3 4 5 6 7 8

chain bonds :

7-9 8-13 9-10 9-11

ring bonds :

1-2 1-5 2-3 3-4 4-5 4-6 5-8 6-7 7-8

exact/norm bonds :

1-2 1-5 2-3 3-4 4-5 4-6 5-8 6-7 7-8 9-10 9-11

exact bonds :

7-9 8-13

isolated ring systems :

containing 1 :

10528612

Match level :

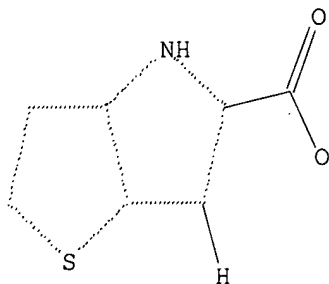
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:CLASS 10:CLASS
11:CLASS 13:CLASS

L2 STRUCTURE UPLOADED

=> d 12

L2 HAS NO ANSWERS

L2 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 12

SAMPLE SEARCH INITIATED 08:30:44 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 101 TO ITERATE

100.0% PROCESSED 101 ITERATIONS
SEARCH TIME: 00.00.01

6 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1418 TO 2622
PROJECTED ANSWERS: 6 TO 266

L3 6 SEA SSS SAM L2

=> s 12 full

FULL SEARCH INITIATED 08:30:51 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 2342 TO ITERATE

100.0% PROCESSED 2342 ITERATIONS
SEARCH TIME: 00.00.01

76 ANSWERS

L4 76 SEA SSS FUL L2

=> s 11

SAMPLE SEARCH INITIATED 08:30:59 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 17 TO ITERATE

100.0% PROCESSED 17 ITERATIONS
SEARCH TIME: 00.00.01

0 ANSWERS

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 93 TO 587
PROJECTED ANSWERS: 0 TO 0

10528612

L5 0 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 08:31:03 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 504 TO ITERATE

100.0% PROCESSED 504 ITERATIONS
SEARCH TIME: 00.00.01

3 ANSWERS

L6 3 SEA SSS FUL L1

=> fil hcaplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

344.20

344.62

FILE 'HCAPLUS' ENTERED AT 08:31:09 ON 08 FEB 2007
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FILE COVERS 1907 - 8 Feb 2007 VOL 146 ISS 7
FILE LAST UPDATED: 7 Feb 2007 (20070207/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d his

(FILE 'HOME' ENTERED AT 08:28:51 ON 08 FEB 2007)

FILE 'REGISTRY' ENTERED AT 08:29:43 ON 08 FEB 2007

L1 STRUCTURE UPLOADED

L2 STRUCTURE UPLOADED

L3 6 S L2

L4 76 S L2 FULL

L5 0 S L1

L6 3 S L1 FULL

FILE 'HCAPLUS' ENTERED AT 08:31:09 ON 08 FEB 2007

=> s 14

L7 54 L4

=> s 16

L8 3 L6

=> s 14 and 16

54 L4

3 L6

10528612

L9

3 L4 AND L6

=> d ed ibib abs hitstr 1-3

10528612

L9 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 27 Sep 2006

ACCESSION NUMBER: 2006:1001125 HCAPLUS

DOCUMENT NUMBER: 146:215

TITLE: Novel thienopyrrole glycogen phosphorylase - *App. work*

Inhibitors:

AUTHOR(S): Synthesis, in vitro SAR and crystallographic studies
Whittamore, Paul R. O.; Addie, Matthew S.; Bennett,
Stuart N. L.; Birch, Alan M.; Butters, Michael;
Godfrey, Linda; Kenny, Peter W.; Morley, Andrew D.;
Murray, Paul M.; Oikonomakos, Nikos G.; Otterbein,
Ludovic R.; Pannifer, Andrew D.; Parker, Jeremy S.;
Readman, Kristy; Siedlecki, Pawel S.; Schofield,

Paul;

Stocker, Andy; Taylor, Melvyn J.; Townsend, Linda A.;

Whalley, David P.; Whitehouse, Jennifer

Astrazeneca, Cheshire, SK10 4TG, UK

Bioorganic & Medicinal Chemistry Letters (2006),

16(21), 5567-5571

CODEN: BMCLE8; ISSN: 0960-894X

Elsevier Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Two series of novel thienopyrrole inhibitors of recombinant human liver
glycogen phosphorylase (a GPa) which are effective in reducing glucose
output from rat hepatocytes are described. Representative compds. have
been shown to bind at the dimer interface site of the rabbit muscle

enzyme

by X-ray crystallog.

IT 403860-09-3P 403860-11-7P 679794-57-1P

679794-58-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

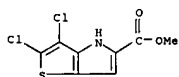
(Reactant or reagent)

(thienopyrroles as glycogen phosphorylase inhibitors)

RN 403860-09-3 HCAPLUS

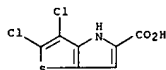
CN 4H-Thieno[3,2-b]pyrrole-5-carboxylic acid, 2,3-dichloro-, methyl ester

(9CI) (CA INDEX NAME)



RN 403860-11-7 HCAPLUS

CN 4H-Thieno[3,2-b]pyrrole-5-carboxylic acid, 2,3-dichloro- (9CI) (CA INDEX NAME)



L9 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN

ED Entered STN: 15 Apr 2004

ACCESSION NUMBER: 2004:308441 HCAPLUS

DOCUMENT NUMBER: 140:339190

TITLE: Process for the preparation of thieno[3,2-b]pyrrole

derivatives

INVENTOR(S): Butters, Michael; Schofield, Paul; Stocker, Andrew

PATENT ASSIGNEE(S): Astrazeneca AB, Swed.; Astrazeneca UK Limited

SOURCE: PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004031193	A1	20040415	WO 2003-GB4211	20030929
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GR, GU, HK, HM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2498843	A1	20040415	CA 2003-2498843	20030929
AU 2003267656	A1	20040423	AU 2003-267656	20030929
EP 1549653	A1	20050706	EP 2003-748348	20030929
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003014312	A	20050726	BR 2003-14312	20030929
CN 1688588	A	20031026	CN 2003-823736	20030929
JP 2006503077	T	20060126	JP 2004-540938	20030929
NO 200501047	A	20050428	NO 2005-1047	20050225
US 2005272938	A1	20051208	US 2005-528612	20050321
PRIORITY APPLN. INFO.:			GB 2002-22909	A 20021003
			WO 2003-GB4211	W 20030929

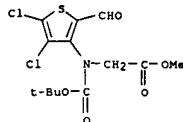
OTHER SOURCE(S):

GI MARPAT 140:339190

L9 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)

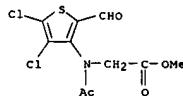
RN 679794-57-1 HCAPLUS

CN Glycine, N-(4,5-dichloro-2-formyl-3-thienyl)-N-((1,1-dimethylethoxy)carbonyl)-, methyl ester (9CI) (CA INDEX NAME)



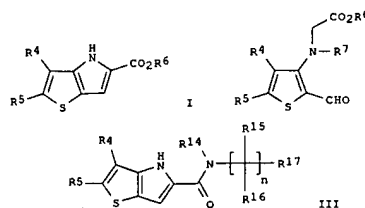
RN 679794-58-2 HCAPLUS

CN Glycine, N-acetyl-N-(4,5-dichloro-2-formyl-3-thienyl)-, methyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



AB A safer process for preparing a compound of formula I (R4, R5 = independently H, halo, nitro, fluoromethyl, etc.; R6 = H or a protecting group), which comprises cyclization of a compound of formula II (R7 = a nitrogen protecting group) and removing the group R7 or any protecting group R6,

is disclosed. For example, chlorination of thiophene-3-carboxaldehyde (78%) and oxidation, gave 4,5-dichlorothiophene-3-carboxylic acid. Curtius rearrangement of the acid using diphenylphosphoryl azide in the presence

of tert-butanol (78%), followed by formylation (63%), afforded tert-Bu (4,5-dichloro-2-formyl-3-thienyl)carbamate. Substitution of the carbamate

with Me bromoacetate and hydrolysis by acetic acid, provided Me N-acetyl-N-(4,5-dichloro-2-formyl-3-thienyl)glycinate, II (R4 = R5 = Cl, R6 = Me, R7 = COMe). Cyclization of II (45%), followed by hydrolysis (100%), gave the final compound 2,3-dichloro-4H-thieno[3,2-b]pyrrole-5-carboxylic acid, I (R4 = R5 = Cl, R6 = Me). The use of these novel intermediates in the formation of pharmaceutical compds. III (R4, R5 = as defined above; R14 = H, alkyl; R15 = H, halo, cyano, mercapto, etc.; R16 = H, alkyl; R17 = H, halo, amino, hydroxy, carbamoyl, etc.) is also claimed.

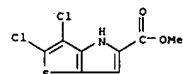
IT 403860-09-3P 679794-57-1P 679794-58-2P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (preparation of thieno[3,2-b]pyrrole carboxylic acid via cyclization

of (formylthienyl)glycinate derivative)

RN 403860-09-3 HCAPLUS

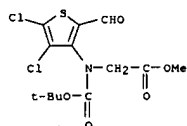
CN 4H-Thieno[3,2-b]pyrrole-5-carboxylic acid, 2,3-dichloro-, methyl ester (9CI) (CA INDEX NAME)



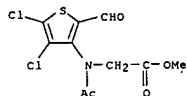
RN 679794-57-1 HCAPLUS

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L9 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)
 CN Glycine, N-(4,5-dichloro-2-formyl-3-thienyl)-N-[(1,1-dimethylethoxy)carbonyl]-, methyl ester (9CI) (CA INDEX NAME)

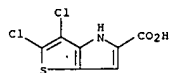


RN 679794-58-2 HCAPLUS
 CN Glycine, N-acetyl-N-(4,5-dichloro-2-formyl-3-thienyl)-, methyl ester (9CI) (CA INDEX NAME)



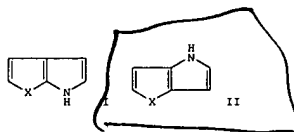
IT 403860-11-7P
 RL: IMP (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
 (Preparation of thieno[3,2-b]pyrrole carboxylic acid via cyclization of (formylthienyl)glycinate derivative)

RN 403860-11-7 HCAPLUS
 CN 4H-Thieno[3,2-b]pyrrole-5-carboxylic acid, 2,3-dichloro- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L9 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN
 ED Entered STN: 12 May 1984
 ACCESSION NUMBER: 1979:103864 HCAPLUS
 DOCUMENT NUMBER: 90:103864
 TITLE: Studies on heterocyclic series. XXIX. Routes to thieno-, selenolo-, furo-, and pyrrolopyrroles
 AUTHOR(S): Soth, Samreth; Farnier, Michel; Paulmier, Claude
 CORPORATE SOURCE: Lab. Polarogr. Org., Fac. Sci. Gabriel, Dijon, Fr.
 SOURCE: Canadian Journal of Chemistry (1978), 56(10), 1429-34
 CODEN: CJCHAG; ISSN: 0008-4042
 DOCUMENT TYPE: Journal
 LANGUAGE: French
 GI

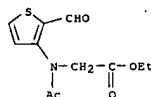


AB The reaction of EtO2CCH2N3 with the monoaldehydes of furan, thiophene and selenophene followed by cyclization, hydrolysis, and decarboxylation gave the pyrrolo compds. I (X = O, S, Se) and II (X = O, S, Se). I (X = N)

was prepared by this route using Et 4-formylpyrrole-2-carboxylate as the substrate. II (X = S, Se) were also obtained by the action of EtO2CCH2Br on 3-acetamidothiophene-2-aldehyde, or the corresponding seleno compound, followed by cyclization of the N-substituted acetamide products.

IT 67268-40-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (Preparation and cyclization of)

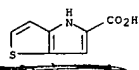
RN 67268-40-0 HCAPLUS
 CN Glycine, N-acetyl-N-(2-formyl-3-thienyl)-, ethyl ester (9CI) (CA INDEX NAME)



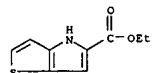
IT 39793-31-2P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (Preparation and decarboxylation of)

RN 39793-31-2 HCAPLUS
 CN 4H-Thieno[3,2-b]pyrrole-5-carboxylic acid (6CI, 7CI, 9CI) (CA INDEX NAME)

L9 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2007 ACS on STN (Continued)



IT 46193-76-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (Preparation and hydrolysis of)
 RN 46193-76-4 HCAPLUS
 CN 4H-Thieno[3,2-b]pyrrole-5-carboxylic acid, ethyl ester (7CI, 9CI) (CA INDEX NAME)



10528612

=> log h

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
23.61	368.23

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-2.34	-2.34

CA SUBSCRIBER PRICE

SESSION WILL BE HELD FOR 120 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 08:33:01 ON 08 FEB 2007